

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No.: HESS-2

In re Application of:)	
RAUL HESS)	
Appl. No.: 10/572,756)	
Filed: March 20, 2006)	Group Art Unit: 1772
For: METHOD AND DEVICE FOR MULTILAYER REMOVAL OF MATERIAL FROM A THREE DIMENSIONAL SURFACE WITH LASER USING A POLYGON NETWORK DESCRIBED BY A MATHEMATICAL FUNCTION REPRESENTING THE SURFACE)	Confirmation No.: 9550

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

S I R:

In accordance with 37 C.F.R. 1.56, applicant wishes to call the attention of the Examiner to the references listed on enclosed form PTO-1449 which were cited in the instant specification, in the International Search Report Issued by the European Patent Office with regard to the corresponding International patent application No. PCT/EP2004/010715 and in a German Office Action issued by the German Patent Office with regard to the corresponding German patent application No. 103 45 080.7, respectively. Applicant does not admit that any of the cited documents constitutes prior art against the pending application.

Copies of these references are submitted herewith along with form PTO-1449. The Examiner is requested to initial the attached form PTO-1449 and to return a copy of the initialed document to the undersigned as an indication that the attached references have been considered and made of record.

- [] This Information Disclosure Statement is filed within three months of the filing date of a national application other than a continued prosecution application under 1.53(d), so that no fee under 37 C.F.R. §1.97 is due.
- [] This Information Disclosure Statement is filed within three months of the date of entry of the national stage as set forth in 1.491 in an international application, so that no fee under 37 C.F.R. §1.97 is due.
- [X] This Information Disclosure Statement is filed before the mailing of a first Office Action on the merits, so that no fee under 37 C.F.R. §1.97 is due.
- [] This Information Disclosure Statement is filed before the mailing of a first Office Action after the filing of a request for continued examination under §1.114, so that no fee under 37 C.F.R. §1.97 is due.
- [] This Information Disclosure Statement is filed after the issuance of a first office but before issuance of a final action under §1.113, or a notice of allowance under §1.311.
- [] This Information Disclosure Statement is submitted after the mailing of a final action or a notice of allowance, but before payment of the issue fee.
- [] The undersigned submits the following statement requesting consideration of this statement:
The undersigned hereby states:
- [] That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement;
- [] That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart

foreign application, and, to the knowledge of the person signing the statement after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in §1.56(c) more than three months prior to the filing of the information disclosure statement.

- ☐ The fee of \$180.00 set forth in 1.17(p).
- ☐ The Commissioner is hereby authorized to charge the fee as set forth in 1.17(p), and any additional fees which may be required, or credit any overpayment to Deposit Account No. 06-0502.
- ☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 06-0502.

In order to satisfy the requirement under 37 C.F.R. §1.98(a)(3) for a concise explanation of the relevance of each item of information, applicant herewith submits a copy of the International Search Report. In addition, applicant notes with respect to any information that is not in English language as follows:

German Offenlegungsschrift DE 39 39 866 A1 describes a laser engraving device using a laser light source (8) and a controlled beam deflector (5, 6) which allows the laser beam to be deflected onto a focussing mirror (3) in dependence on the characters to be engraved. The focussing mirror (3) comprises a rotationally symmetrical annular mirror or mirror section, with a current mirror surface (4) in the plane containing the axes of symmetry (16). Pref. the axis of symmetry (16) for the focussing mirror (3) coincides with the axis of symmetry of the workpiece mantle surface (13). The workpiece is preferably axially offset along the axis of symmetry (16) of the mirror (3). While engraving the work piece need not be moved relative to the laser.


German Patent No. DE 42 09 933 C2 describes a partial surface modification of metallic or non-metallic bodies carried out using a Q-switched

continuous wave Nd:YAG laser having optionally a beam expander in the beam path, a beam deflector with a computer-controlled rotary deflection mirror, and a plane field objective for focussing the laser beam, the laser being moved over the surface along one or more reference lines present by the computer. The laser beam is moved within an outline (U1, U2) delimiting the surface portion (A) to be modified, along reference lines forming the grid lines (R1, R2, R3) of a grid field (N) and then the entire grid field (N) is shifted at least once by a certain amount, while maintaining the relative position of the outline (U1, U2) and the entire surface portion (A) is re-scanned by the laser beam along the grid lines (R1, R2, R3). During each scan, the operating time and the energy content level of the laser pulses are limited so that material evaporation is effected with minimal plasma formation.

The above-identified application discloses and claims an invention patentable over this prior art.

Entry of the references above set forth into the file of the above application is believed to be in order and is respectfully requested.

Respectfully submitted

By: 
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INFORMATION DISCLOSURE CITATION

Attorney's Docket No. HESS-2	Applicant RAUL HESS	Appl. No. 10/572,756
Filing Date March 20, 2006	Group 1772	Examiner

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date, if appropriate
	6,300,595	10-06-2001	Williams			
	6,407,361	06-18-2002	Williams			
	5,519,821	05-21-1996	Schauer et al.			
	5,621,827	04-15-1997	Uchiyama et al.			

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation
	DE 44 41 337 A1	05-09-1996	Germany			no
	DE 101 16 672 A1	10-18-2001	Germany			no
	DE 100 32 981 A1	01-24-2002	Germany			no
	EP 1 167 075 A2	01-02-2002	Europe			yes
	DE 39 39 866 A1	06-06-1991	Germany			no
	DE 42 09 933 C2	09-30-1993	Germany			no

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Examiner:

Date considered:

*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.